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ABSTRACT

An experimental study evaluated the writing growth of 97 college freshmen before and after instruction to determine whether direct instruction in F. Christensen's "Generative Rhetoric of a Sentence" (1967) made a significant impact on freshmen writers' use of right-branched free modification. The study used a quantitative, pretest/posttest experimental design. The experimental group of 48 students was directly taught the "Generative Rhetoric of a Sentence," but the control group (49 students) received instruction in free modification. Results indicated that the experimental group made statistically significant gains over the control group, particularly in the number of right-branched free modifiers and in the number and percentage of words used in right-branched free modification. (Four tables of data are included and 25 references are attached.) (SR)

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The Effects of Christensen's Generative Rhetoric of a Sentence on the Right-Branched Free Modification of College Freshman Writing

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Running head: Right-Branching Free Modification

Abstract

This experimental study evaluated the writing growth of 97 college freshmen before and after instruction to determine whether direct instruction in Christensen's "Generative Rhetoric of a Sentence" (1967) made a significant impact on freshman writers' use of right-branched free modification. The study used a quantitative, pretest/posttest experiemental design. The experimental group (n = 48) was directly taught this "Generative Rhetoric of a Sentence," but the control group (n = 49) received no instruction in free modification. Results from the Multivariate Analysis of Variance (MANOVA) indicated that the experimental group made statistically significant gains over the control group, particularly in the number of right-branched free modifiers and in the number and percentage of words used in right-branched free modification. This study suggests that direct instruction in Christensen's "Generative Rhetoric of a Sentence" (1967) made a significant impact on the experimental group's gains in right-branched free modification.

In discourse production, Chomsky (1957) influenced language theory and research with his theory of "Generative Transformational Grammar," ushering in a new perspective on the process by which language is generated. This generative process of language was emphasized later by Christensen (1967) with his "generative rhetoric of a sentence and paragraph," stimulating new interests in the processes by which skilled writers produce texts. Accordingly, proponents of Christensen's "Generative Rhetoric of a Sentence" claim that it helps students with invention and style, increasing their syntactic fluency by building cumulative sentences using free modifiers, a strategy for conveying meaning effectively to a reader (Winterowd, 1975). This strategy serves as a pedagogical tool in the classroom, where teachers can explain to students how to use free modifiers in their actual writing with a purpose and for an audience. Students then generate their own basic sentence about an idea they have and add details to it through the use of free modifiers usually following the main independent, base clause (Hillocks, 1986).

Since the aim of composition courses is to help students become better writers, it is important to know how effective Christensen's "Generative Rhetoric of a Sentence" is for getting students to generate more language by using free modification in their sentences; it is especially worth discovering whether Christensen's method engenders students' use of right-branched

free modifiers following the base clause, creating a sentence style similar to that of skilled professional writers (Etchison, 1986). To examine these assumptions further, this study investigates the effects of Christensen's technique in composing cumulative sentences, focusing on right-branched free modification in college freshmen's writing.

The purposes of this study include the following: (1) to define the specific techniques of instruction based on Christensen's "Generative Rhetoric of a Sentence" (1967); (2) to measure from pretest to posttest the syntactic growth in right-branched free modification of college freshmen writing; (3) to determine whether there are statistically significant differences between the experimental group and the control group in their syntactic growth of right-branched free modification.

Frequency counts of right-branched free modifiers and words in right-branched free modification are significant in writing fluency: Text length appears to be associated with writing quality, showing developed ideas and sophisticated modification in sentences (Nold & Freedman, 1977). Sophisticated modification alone also indicates good writing, especially in right-branched or final free modifiers (Christensen, 1967; Nold & Freedman, 1977). This study analyzes right-branched free modification to see how effective Christensen's teaching tool is for helping students generate more content embodied in the form of more sophisticated and mature sentences.

Review of Related Research

On syntactic fluency (Mellon, 1969), Cooper (1975) explains that research is quite compelling in its implication that teachers of writing should be teaching directly for syntactic fluency and assessing the results through mean T-unit length (Hunt, 1965), a better index of growth than sentence length (Christensen, 1967; O'Hare, 1973). A T-unit is a base clause with subordinate structures attached to or embedded in it (Sloan, 1983). In T-unit length, Cooper says that there are other indices of growth for syntactic fluency, such as the number of modifiers (words, phrases, and clauses).

In writing fluency, one significant syntactic feature researchers have studied is "free modification," particularly final free (right-branched) modifiers. Based on Christensen's work (1967) with cumulative sentences, these free modifiers help students increase their syntactic fluency in order to express ideas more effectively. According to Winterowd (1975), "Practice with free modifiers does improve students' prose" (p. 233). He further writes:

> Whether or not there can be ideas without language, ideas cannot be expressed--adequately, at least--unless the writer has the ability to embody those ideas in appropriate structures. Syntactic fluency is the ability to use the syntactic resources of the language in order to express ideas. . . Students write or begin to write something with

> a purpose and for an audience. Their problem--every writer's problem--is a lack of strategies for conveying meaning effectively. One set of strategies is the free modifiers, and the teacher can explain the free modifiers by helping students use them in their actual writing. (pp. 337-338)

Free modifiers are any element coming before the base clause and elements embedded within or after the base clause set off by commas, dashes, or parentheses (Faigley, 1979a). Christensen (1967) felt that, while the T-unit might be a useful gauge of complexity or maturity, it is inadequate to distinguish between good and bad writing, so he focused on two measures he felt indicative of good adult style: base clause length (relative shortness being a virtue); and high percentages of words in free modifiers following a base clause--"final position" (Broadhead, Berlin, & Broadhead, 1982). Christensen said that types of free modification are important in writing. He noted that professional writers use certain types of free modification, primarily right-branched in final position, and generally limit their use of other types of modification, such as left-branching and embedding (Etchison, 1986).

Based on Christensen's research of professional writers' heavy use of final (right-branched) free modifiers, Nold and Freedman's study (1977) examined the number of words in final free modifiers, supporting Christensen's hypothesis that

sophistication in modification--especially in right-branched final free modifiers--is indicative in good writing, not only in narrative and descriptive discourse on which Christensen based most of his work, but also in expository and argumentative discourse.

As Christensen (1967) and Faigley (1979a) have documented, good writers use free modification that is predominantly right-branched to develop the text of their prose. In one study, Wolk (1970) found that professional writers use more free modifiers in all positions and more final (right-branched) free modifiers than college freshmen (Hillocks, 1986). In another study, Faigley (1979a) compared the essays of thirty-two college freshmen with the writing samples from twenty-two skilled, adult professional writers in Hall and Emblen's anthology (1976), A Writer's Reader. Faigley found that the skilled professional writers had substantially more words per T-unit than the college freshmen had. To explain this substantial increase in words per T-unit, Faigley further discovered that these skilled adult writers used 30.3 percent of their total words in free modifiers, compared to 16.1 percent in free modifiers written by his freshmen (Hillocks, 1986). And the skilled professional writers used over half of these free modifiers in the final or right-branched position: The skilled adult writers used 17.5 percent of their words in right-branching, whereas the college freshmen used only 3.5 percent. Faigley's study supports Christensen's conclusion that

skilled writers use a higher percentage of words in free modifiers than do student writers, especially in the right-branched position.

For another study, Faigley (1979b) also found that teaching Christensen's "generative sentence rhetoric" (1967) of free modifiers bore a significant relationship to improvement in overall quality ratings of college freshman writing, a result corroborated by Nold and Freedman (1977), who found that the percent of words in right-branched free modifiers was associated with quality (Hillocks, 1986). Faigley also reports statistically significant gains favoring the experimental groups over the control groups in the percent of words in right-branched free modifiers ($p < .001$), and in the percent of T-units with right-branching ($p < .001$).

Other studies also make claims for the effectiveness of this sentence construction by increasing the use of modifiers (Brooks, 1976; Palmer, 1971; Walshe, 1971). Also investigating modifiers in college freshmen writing Cooper, Cherry, Copley, Fleischer, Pollard and Sartisky (1984) measured syntactic fluency by examining mean T-unit length and free modification; they found that the best freshman writers in the study packed more information into each T-unit--information that qualified, elaborated, specified or modified. However, Cooper et al. (1984) discovered that right-branched free modifiers, a characteristic

of professional writing, appeared more frequently in poor freshmen writing than in the best freshmen writing.

In further research on free modifiers in professional writing Broadhead, Berlin, and Broadhead (1982) report: "For the teachers of generative rhetoric, syntactic complexity has been regarded as a virtue, as in Christensen (1978) and Faigley (1979a)" (p.225). Broadhead et al., in a survey of sixty-four academic journals, found that right-branched free modification is also characteristic of professional academic prose. In fact, they discovered that multi-structured sentences are apparently clearest (most readable) when writers add free modifiers to develop an idea expressed in a short base clause (main independent clause). They also found that right-branched free modifiers play a substantially greater role than initial (left-branched) and middle-position modifiers for supplying details or other modification to develop ideas. Broahead et al. concluded that instruction in the use of free modifiers (whether through sentence-combining, generative rhetoric, or traditional means) would be applicable to the entire range of college writing, especially appropriate in technical/scientific writing. Overall, this research is significant to the present study's assessment of right-branched free modification.

Method

Design

This study used a pretest/posttest, experimental design with quantitative and statistical analysis for the following purposes: (1) to assess the nature and effects of Christensen's "Generative Rhetoric of a Sentence" (1967) on the syntactic growth of college freshmen writing in right-branched free modifiers; and (2) to discover statistical differences between the experimental group and the control group in the growth of right-branched free modification.

Participants

During one 15-week semester, 97 students in the study composed writing samples collected from four Freshman Composition classes at Indiana University of Pennsylvania (McAndrew, Williamson, & Swigart, 1986). In two of these classes, students selected for the experimental group (n = 48) received direct instruction in Christensen's "Generative Rhetoric of a Sentence" (1967); in the other two classes, students selected for the control group (n = 49) received no instruction in the Christensen method. These students enrolled in the Freshman Composition classes without knowing they would participate in this experimental study.

Instructional Procedure

The composition classes in this study were selected because of their classroom pedagogy. The instructors of these composition sections had no knowledge of the present study's purposes, the variables examined in right-branched free modification and the hypotheses about expected results; therefore, this study did not affect the way these classes were taught. The procedures of instruction for the experimental group were ascertained by surveying the instructors' attitudes about and approaches to teaching college writing, in addition to analyzing the classroom instruction identifying with Christensen's "Generative Rhetoric of a Sentence" (1967).

Data Collection

The students' writing samples were collected before and after instruction in the pretest/posttest design (Sanders & Littlefield, 1975). Two pretest writing samples were taken from each participant at the beginning of the semester before instruction began, and two posttest samples were taken at the end of the semester after instruction. The writing assignments for both pretest and posttest were designed to produce two pieces of transactional writing, one expository (explanatory) and one persuasive (argumentative). The writing assignments were randomized so that each student would write one expository and

one persuasive essay at the beginning of the semester and again at the end (Etchison, 1986).

Writing Sessions

The students engaged in writing sessions conducted similarly for both the pretest and the posttest. At the beginning of the semester before instruction, students were given the assigned writing task during the class period before they were to begin composing. Each of the six tasks had a specific topic, context, purpose, and audience. The students were told that they could think about the task, make notes and sketches if they wanted, and use notes or sketches during the actual writing of the essay. But they were instructed not to write out a draft of the essay before coming to class.

Students then spent the following class period composing a draft of the assigned writing task. Students were allotted 45 minutes to write the first essay. At the end of that time, essays were collected. During the following period the essays were returned, and the students were given 15 minutes to revise them. At the end of that time the essays were collected. The exact procedure was followed for the second pretest essay, only with a different writing task. This same procedure was then repeated for the two posttest essays at the end of the 15-week semester after the 97 college freshmen in the study had completed their composition classes.

Procedures for Data Analysis

For the this study, five variables were analyzed in the text length, syntax, and free modification of the students' essays: (1) number of words in the whole essay; (2) number of T-units; (3) number of right-branched free modifiers; (4) number of words in right-branched free modification; (5) percent of words in right-branched free modification.

All word counts in the essays followed rules based on the work of McAndrew (1982) and O'Hare (1973): (1) Compound nouns written as one word were counted as one word; (2) compound nouns written as two words and hyphenated word pairs were counted as two words; (3) phrasal proper names and titles were counted as one word; (4) dates and contractions were counted as one word; (5) abbreviations were changed to words and then counted as words; (6) letter salutations and closings, as well as titles, were not counted.

T-units were then identified according to the system of analysis developed by McAndrew (1982) and defined by Sloan (1983): A T-unit is one main independent (base) clause with any subordinate/dependent clauses or non-clausal structures (phrases or words) attached to or embedded in the base clause. For direct discourse, the expression immediately following the "He/She said" construction was counted as part of the T-unit. Additional T-units of direct discourse were identified as regular T-units in the text. T-units were then counted and recorded.

Right-branched free modification was examined based on Christensen's system of analysis (1967). Free modification is generally determined by punctuation (Hartwell & Bentley, 1982). Faigley (1979a) specifically defines free modifiers as any subordinate element coming before a main independent, base clause and elements embedded within or after the base clause set off by commas, dashes, or parentheses. For right-branched free modification, any one of these three forms of punctuation had to be present before modifiers were counted as free, and these modifiers had to be to the right of or after the main independent (base) clause of any given T-unit. In addition, sentence fragments were also counted as right-branched free modifiers if they came to the right of or after the main independent clause of the preceding T-unit; these sentence fragments also had to modify the main base clause of the preceding T-unit, or modify any right-branched free modifier already attached to that main base clause.

This free modification was then analyzed in the following way: (1) Right-branched free modifiers were highlighted in yellow and counted for each essay; (2) the total number of words in these free modifiers was then counted and recorded; (3) to determine the percent of words, the total number of words in each essay was divided into the number of words in the right-branched free modifiers. This permitted an accurate summary of how frequently words in right-branching were used by the students.

The accuracy and reliability of these analyses--total number of words, T-units, right-branched free modifiers, number and percentage of words in right-branched free modification--were checked by a colleague who had been trained in the analytic procedure prior to the study. She is a college composition instructor with fifteen years experience, holding an M.A. in Literature and an M.F.A. in Creative Writing. She checked every tenth paper of the sample to ensure a reliable analysis (Bridwell, 1980) across nearly four hundred papers. Rate of agreement was 96.6%.

Statistical analysis on right-branched free modification was computed by using the Statistical Package for the Social Sciences (SPSS), specifically "Multivariate Analysis of Variance" (MANOVA). Tests of F statistics determined whether there were significant differences between the experimental group and the control group in pretest-to-posttest change on these variables of free modification.

Results

The results of the quantitative analyses show the statistical differences between the experimental group and control group from pretest to posttest on the students' writing growth in right-branched free modification. For significance tests (MANOVA), the total degrees of freedom (df) are based on a sample size of 100 subjects. But in this study the sample size

was reduced to 97 because data sets were incomplete for three subjects, two students in the experimental group and one student in the control group. Levels of significance for the tests of F statistics are based on the following "P" values (significance of F): (1) * $p < .05$, significant; (2) ** $p < .01$, highly significant; and (3) *** $p < .001$, very highly significant. Table 1 presents the significance tests for the following variables: the number of right-branched free modifiers, the number of words in right-branched free modification, and the percentage of words in right-branched free modification.

Insert Table 1 about here

Analysis of Change in the Number of Right-Branched Free Modifiers

Table 2 shows the analysis of change and standard deviations in the number of right-branched free modifiers from pretest to posttest. For the main effect in the method of writing instruction, the statistical test (Table 1) indicates that the change from pretest to posttest was significantly different between the experimental group and the control group ($F = 11.98675$; $df = 1, 92$; $p = .00081$). At the beginning of the semester, both groups of students started at virtually the same level in the mean number of right-branched free modifiers. But

by the end of the semester the experimental group showed a significantly greater increase than the control group in the mean number of right-branched free modifiers.

Insert Table 2 about here

Analysis of Change in the Depth of Right-Branched Free Modification

The analysis of change in the depth of modification examined the mean number of words used in right-branched free modification (See Table 3 for the means and standard deviations). The statistical test (Table 1) for pretest-to-posttest change in depth indicated a significant difference between the two groups ($F = 16.31687$; $df = 1, 92$; $p = .00011$). At the beginning of the course, both comparison groups started at the same level for the mean number of words in right-branched free modification. However, by the end of the course the experimental group experiencing Christensen's "Generative Rhetoric of a Sentence" produced significantly more words in right-branched free modifiers than the control group who, in fact, showed a slight decrease in the mean number of words.

Insert Table 3 about here

Analysis of Change in the Rate of Right-Branched Free Modification

The analysis of change in the rate of free modification examined the mean percentage of words used in right-branched free modifiers compared to the total number of words in each essay (See Table 4 for the means and standard deviations). In the main effect for the teaching method, this rate of change from pretest to posttest showed a significant difference between the two groups of students ($F = 21.70127$; $df = 1, 92$; $p = .00001$). At the beginning of the semester, both comparison groups began at the same level. At the end of the semester, however, the participants of the experimental group showed a significantly greater increase than the subjects of the control group in the mean percentage of words used in right-branched free modification. In fact, the control group showed a slight decrease in the mean percentage of this variable.

Insert Table 4 about here

Discussion and Implications

Statistically, the change between the comparison groups differed significantly ($p < .001$) in the use of right-branched free modification, favoring the students of the experimental group. Compared to the control group, the experimental group

produced a mean of 2.62 more right-branched free modifiers, a mean of 21.73 more words in right-branched free modification, and a mean of 3.94 percent more words in right-branched free modification. These gains in free modification directly resulted from the effects of Christensen's "Generative Rhetoric of a Sentence," one of the "foci of instruction" (Hillocks, 1984, 1986) in the composition classes constituting the experimental group. The instructors of these classes did emphasize free modification, especially right-branching, a focus of instruction that Hartwell and Bentley (1982) endorse in their textbook.

The results of this study have implications for the teaching of writing, particularly implications from the impact of Christensen's "generative sentence rhetoric" on the syntactic growth and invention skills of college freshmen for developing clarity in their writing. This investigation also informs English faculty about the techniques in Christensen's method to facilitate college students' sentence building, especially with right-branched free modifiers.

The findings of this study support Christensen's point (1967): Too often composition teachers just expect their students to improve, regardless of the type of instruction. This study strongly suggests that the type of instruction taught to students does make a significant difference in their writing growth. And when teaching free modification becomes a central part of the classroom pedagogy, Christensen's "Generative

Rhetoric of a Sentence" (1967) will lead students to significant gains in right-branched free modification for improving their writing quality, a quality compared to that of professional writers. The results of this study support other research on the effectiveness of sentence construction by increasing the use of free modifiers, particularly right-branching (Broadhead, Berlin, & Broadhead, 1982; Brooks, 1976; Faigley, 1979b; Hillocks, 1986; Nold & Freedman, 1977; Palmer, 1971; Walshe, 1971).

This evidence provides valuable information for composition teachers: Directly teaching Christensen's method on free modification will help improve their students' writing quality, specifically for generating more content and for enhancing sentence style. Students can examine model sentences in free modification written by skilled professional writers, imitate them and practice composing them; then students can generate their own basic sentences and add details using various syntactic structues, particularly right-branched free modifiers; this sentence construction requires that students generate their own information prior to building syntactic stuctures, perhaps allowing a rhetorical context for sentence construction, one in which the student writers must make decisions about which details are important, depending on the meaning they intend to negotiate with their audience (Hillocks, 1986). Therefore, students will most likely use free modifiers in real rhetorical contexts for their own writing, as evidenced by this study on right-branching.

This pattern of instruction--asking students to generate a sentence and to build on it by adding details with right-branched free modifiers--suggests a reciprocal relationship between structure and content, each demanding the other in composing; elaborated discourse receives higher quality ratings than unelaborated discourse, suggesting the need for elaboration of this kind produced by Christensen's sentence construction (Hillocks, 1986). This practice will yield significant outcomes in writers' overall quality and sentence structure for better development and clarity of ideas. This teaching method is especially beneficial when invention and revision are fostered in the students' composing processes, coupled with other approaches such as sentence combining or even conferencing.

In conclusion, this study suggests that using Christensen's "Generative Rhetoric of a Sentence" (1967) can benefit students in the composition classroom. This study also calls for further research that will help writing teachers understand even better the ways in which syntactic free modification--particularly right-branching--can improve students' writing quality, a quality approaching that of skilled professional writers.

References

Bridwell, L. S. (1980). Revising strategies in twelfth grade students' transactional writng. Research in the Teaching of English, 14, 197-222.

Broadhead, G. J., Berlin, J. A., & Broadhead, M. M. (1982). Sentence structure in academic prose and its implications for college writing teachers. Research in the Teaching of English, 16, 225-240.

Brooks, L. Y. (1976). The effect of a study of generative rhetoric on the syntactic fluency of seventh-graders. (Doctoral dissertation, Auburn University, 1975). Dissertation Abstracts International, 36, 7148A.

Chomsky, N. (1957). Syntactic Structures. The Hague: Mouton.

Christensen, F. (1967). Notes toward a new rhetoric: Six essays for teachers. New York: Harper & Row.

Cooper, C. R. (1975). Research roundup--Measuring growth in writing. English Journal, 64(7), 111-120.

Cooper, C. R., Cherry, R., Copley, B., Fleischer, S., Pollard, R., & Sartisky, M. (1984). Studying the writing abilities of a university freshman class: Strategies from a case study. In R. Beach & L. S. Bridwell (Eds.), New directions in composition research (pp. 19-52). New York: Guilford.

Etchison, C. (1986). A comparative study of the quality and syntax of compositions by first year college students using handwriting and word processing. (Doctoral dissertation, Indiana University of Pennsylvania, 1985). Dissertation Abstracts International, 47, 01A.

Faigley, L. (1979a). Another look at sentences. Freshman English News, 7(3), 18-21.

Faigley, L. (1979b). The influence of generative rhetoric on the syntactic maturity and writing effectiveness of college freshmen. Research in the Teaching of English, 13, 197-206.

Hartell, P., & Bentley, R. H. (1982). Open to language. New York: Oxford University Press.

Hillocks, G., Jr. (1984). What works in teaching composition: A meta-analysis of experiemental treatment studies. American Journal of Education, 93, 133-170.

Hillocks, G., Jr. (1986). Research on written composition: New directions for teaching. Urbana, IL: National Conference on Research in English.

Hunt, K. (1965). Grammatical structures written at three grade levels. Champaign, IL: National Council of Teachers of English.

McAndrew, D. A. (1982). The effects of an assigned rhetorical context on the syntax and holistic quality of the writing of first year college students. (Doctoral dissertation, State University of New York at Buffalo, 1982). Dissertation Abstracts International, 42, 2970A.

Mc Andrew, D. A., Williamson, M. M., & Swigart, F. H. (1986). Final report and recommendations of the English department's task force for the evaluation of the teaching of writng. Indiana: Indiana University of Pennsylvania.

Mellon, J. (1969). Transformational sentence combining (Research report no.10). Champaign, IL: National Council of Teachers of English.

Nold, E. W., & Freedman, S. W. (1977). An analysis of readers responses to essays. Research in the Teaching of English, 11, 164-174.

O'Hare, F. (1973). Sentence combining: Improving student writing without formal grammar instruction. Urbana, IL: National Council of Teachers of English.

Palmer, W. S. (1971). The free modifier: A fresh mode of teaching composition. (Doctoral dissertation, University of California at Berkeley, 1970). Dissertation Abstracts International, 31, 6477A.

Sanders, S. E., & Littlefield, J. H. (1975). Perhaps test essays can reflect significant improvement in freshmen composition: Report on a successful attempt. Research in the Teaching of English, 9, 145-153.

Sloan, G. (1983). Transitions: Relationships among t-units. College Composition and Communication, 34, 447-453.

Walshe, R. D. (1971). Report on a pilot course on the Christensen rhetoric program. College English, 32, 783-789.

Winterowd, W. R. (Ed.). (1975). Contemporary rhetoric: A conceptual background with readings. New York: Harcourt Brace Jovanovich.

Wolk, A. (1970). The relative importance of the final free modifier: A quantitative analysis. Research in the Teaching of English, 4, 59-68.

Table 1

Significance Tests for Pretest-to-Posttest Changes in the Variables for Right-Branched Free Modification (RBFM)

Variable	df	F	P
Mean Number of RBFM	1	11.98675***	.00081
Mean Number of Words in RBFM	1	16.31687***	.00011
Mean Percentage of Words in RBFM	1	21.70127***	.00001

* p < .05 ** p < .01 *** p < .001

Table 2

Mean Rate of Change in the Number of Right-Branched Free Modifiers with Standard Deviations (SD) from Pretest to Posttest

	Time		
Group	Pretest (SD)	Posttest (SD)	Change
Experimental	4.18 (3.5)	7.00 (4.3)	2.81
Control	4.42 (2.9)	4.61 (3.1)	0.19

Table 3

Depth of Change from Pretest to Posttest for the Mean Number of Words in Right-Branched Free Modification with Standard Deviations (SD)

	Time		
Group	Pretest (SD)	Posttest (SD)	Change
Experimental	34.37 (29.6)	55.31 (34.6)	20.94
Control	34.89 (24.6)	34.10 (26.7)	-0.79

Table 4

Rate of Change for the Mean Percentage of Words in Right-Branched Free Modification with Standard Deviations (SD) from Pretest to Posttest

	Time		
Group	Pretest (SD)	Posttest (SD)	Change
Experimental	5.43% (4.1)	8.50% (5.6)	3.07%
Control	5.34% (3.7)	4.47% (3.0)	-0.87%